

REMARKS/ARGUMENTS

Claims 12-31 are active. Page 4 of the specification has been amended to replace the word “claim” with “embodiment” and to include Brief Description of the Drawings which finds support in the original drawings. New claims 12-30 track the prior claims and find support in the original disclosure as follows: Claims 12-16 (claim 1, page 4, lines 18, *ff.*, hybridization conditions are described at the bottom of page 6), Claim 17 (page 14, line 7), Claim 18 (claim 2, page 7, line 7), Claim 19 (table on page 19), Claims 20-21 (claim 10, page 7, line 20, *ff.*), Claims 22-28 (claim 11, page 8, line 12, *ff.*, page 12, line 17) and Claims 29-31 (claims 7-9, page 11, line 21, *ff.*) and Claims 30-31 (page 12, lines 5-14). No new matter has been added.

The Applicants thank Examiner Desai for clarifying the record during the interview on August 18, 2008. It was agreed that the rejection in paragraph 16 involving the Kopecky reference was erroneously included in the Official Action and that the Applicants need not respond to this material.

Restriction/Lack of Unity/Election

The Applicants previously elected with traverse **Group I**, claims 1, 3-5, 8, 10 and 11, directed to nucleic acids, vectors, microorganisms, and methods for making polypeptides, and the species **SEQ ID NO: 1**. The requirement has been made FINAL. The Applicants respectfully request that the claims directed to nonelected subject matter which depend from or otherwise include all the limitations of an allowed elected claim, be rejoined upon an indication of allowability for the elected claim, see MPEP 821.04.

Objection/Specification

Page 19 of specification was objected to as not identifying certain polynucleotide sequences of greater than four nucleotides by SEQ ID NO. While amino acid sequences having 4 or more amino acid residues must be identified by SEQ ID NO, the sequences on page 19 are polynucleotide sequences. Polynucleotide sequences need not be identified by SEQ ID NO: if they contain fewer than 10 nucleotides--see MPEP 2422 and 37 C.F.R. §1.821. The specification was also objected to as lacking a "Brief Description of the Drawings. This objection is moot in view of the amendment to the specification to add this section. Accordingly, these objections may now be withdrawn.

Rejection—35 U.S.C. §101

Claim 8 was rejected under 35 U.S.C. 101 as being non-statutory. This rejection is now moot.

Rejection—35 U.S.C. §112, second paragraph

Claims 8 and 10 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. This rejection is now moot. Claims 8 and 10 have been cancelled.

Rejection—35 U.S.C. §102(b)

Claims 1 and 3-6 were rejected under 35 U.S.C. 102(b) as being anticipated by Kopecky, et al. The Applicants thank Examiner Desai for indicating in the interview summary dated August 18, 2008 that this rejection has been withdrawn.

Rejection—35 U.S.C. §102(b)

Claims 1 and 3-6 were rejected under 35 U.S.C. 102(b) as being anticipated by Livshits, et al., U.S. 2002/0037562 A1. This rejection is moot in view of the cancellation of these claims. It would not apply to independent claim 12 and claims depending from claim 12, since

(a) the Livshits sequence does not comprise SEQ ID NO: 1 or 3,

(b) due to significant differences in polynucleotide sequence, there is no reason to assert that the Livshits sequence would hybridize to the complement of SEQ ID NO: 1 or 3 under stringent conditions, where stringent conditions comprise hybridization in 1 x SSC and 0.1% SDS at 68°C; or

(c) due to significant differences in polynucleotide sequence, there is no reason to assert that the Livshits sequence is at least 70% homologous to SEQ ID NO: 1 or 3.

Accordingly, the Applicants respectfully submit that this rejection does not apply to the new claims.

Rejection—35 U.S.C. §102(e)

Claims 1 and 3-6 were rejected under 35 U.S.C. 102(e) as being anticipated by Nakagawa, et al., U.S. 2002/0197605 A1. This rejection is moot in view of the cancellation of the prior claims. It would not apply to independent claim 12 or claims depending from claim 12, since Nakagawa does not disclose a polynucleotide which “does not encode a protein comprising the sequence Gly Ile Ile at the positions corresponding to residues 20-22 of SEQ ID NO: 2”—see nucleotides 55-66 of the Nakagawa sequence reproduced at the bottom of page 7-top of page 8 of the Official Action:

Nakagawa = Qy = GAC GGA ATC ATT
 Asp Gly Ile Ile.

Since Nakagawa does not meet this limitation in claim 12, it cannot anticipate claim 12 or the other claims which depend from claim 12. Thus, this rejection does not apply to the new claims.

Objection

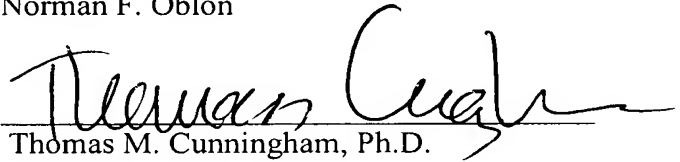
Claim 11 was objected to as being informal. This objection is now moot.

Conclusion

In view of the amendments and remarks above, the Applicants respectfully submit that this application is now in condition for allowance. An early notice to that effect is earnestly solicited.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Thomas M. Cunningham", is written over a horizontal line.

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